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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,521	03/11/2004	Richard L. Clark	NVDA/P001173	7248

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EXAMINER	
QUINN, NEIL P	

ART UNIT	PAPER NUMBER
2676	

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/798,521	CLARK, RICHARD L.	
	Examiner	Art Unit	
	Neil P. Quinn	2676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5/26/06
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4,23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Goh (patent #5678015).

In regards to claim 1, Goh teaches about creating the claimed "render target surface" (See Goh, Col. 5 Lines 12-20). In Goh's invention, a "polyhedron is first generated and displayed."

He then teaches about casting the desktop display as a texture. (see Goh Col. 5 Lines 12-20,50-55). Goh teaches that "the user selects one or more windows to be displayed on the faces of the polyhedron". And that "the windows are applied to the faces of the cube by a process known as texture-mapping". These windows correspond to the desktop display, which become a texture to be mapped to the surface.

Next, Goh teaches that the render target surface can be set as a scanout read location to be displayed later. (see Goh Col. 6 Lines 6-13). Goh teaches that the "windows .. are texture-mapped to the faces of the cube". This texture mapping process would be set to a scanout read location by use of the processor and main memory of the device. (See Goh. Fig 3 Items 304 and 308).

In regards to claims 2-4, Goh teaches that the target object can be a two dimensional rectangular object. (See Goh Col. 5 Lines 21-27) Goh teaches that the target object can a "display of a cube-type polyhedron". Any surface of a cube is a 2-dimensional rectangular by definition of having four right angles.

Goh also teaches that the rectangular object can be stored to the target surface and can be scanned out from the render target surface. Again, Goh teaches that "the windows are applied to the faces of the cube by a process known as texture-mapping" (See Goh. Col 5 Lines 50-55). In the texture-mapping process, a texture is applied to a surface which corresponds to the rectangular object being stored to the claimed render target surface.

In regard to claim 23-25, Goh teaches about a computer system (see Goh Fig. 3), comprising: a processor (Item 304), and memory (Item 308).
Goh teaches that this system can create a render target surface that has substantially the same dimensions as the desktop surface. He states that "the polyhedron thereby appears to be comprised of a number of faces, each of which is one of the windows" (Col. 2 Lines 46-52). Each of these windows corresponds to a desktop "workspace", which has the same dimensions as the surface.

The remaining limitations of this claim have been addressed above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 5-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goh (patent #5678015) in view of Dumesny, et al. (publication # 20020154132) and in further view of Falk (patent #5255352).

In regards to claims 5-10 and 15-18, Goh teaches all of the claimed limitations except:

In regards to claim 5, Falk teaches about using one or more offsets and a zoom factor in order to create a new target object. (see Falk, Col. 10 Lines 21-29). He states that "information must be supplied concerning the relative size of the image versus the relative size of the flattened pattern piece (a scale factor) relative X and Y offsets from a base position(translation), and a rotation... Other methods may be envisioned for allowing a user to position a texture for mapping on a 3D surface". The "scale factor"

corresponds to the claimed "zoom factor", and the "X and Y offsets" correspond to the claimed offsets. Falk is scaling a pattern piece, which can be a texture, to fit a 3d target object's surface, which corresponds to the claimed two dimensional rectangular object

In regards to claim 6, Dumesny, et al. also teach that "A texture is mapped onto a 3D object by creating a mapping, or correlation, between coordinates in the object space and coordinates in the texture space." (See Dumesny, et al. Paragraph 0005). The "correlation between the coordinates" corresponds to the claimed method of calculating the texture addressing coordinates (u, v) of each vertex on the two dimensional rectangular object as a function of the zoom factor and the offsets.

In regards to claim 7, Falk teaches that that "information must be supplied concerning the relative size of the image versus the relative size of the flattened pattern piece (a scale factor) relative X and Y offsets from a base position(translation), and a rotation... Other methods may be envisioned for allowing a user to position a texture for mapping on a 3D surface" (see Falk, Col. 10 Lines 21-29).
Using these offsets and scaling factor correspond to the claimed method of determining an amount of the desktop display surface texture to be mapped to the two dimensional rectangular. Using offsets and a scaling factor to position a texture could be applied to selecting an area of the desktop and mapping it to an object.

In regards to claim 8, Dumesny, et al. teach that "The direct manipulation operation may include translating the graphic element to a new location on the texture map, scaling the graphic element relative to the texture map, rotating the graphic element relative to the texture map, or a **combination** thereof." (see Dumesny, et al.

Paragraph 0010). This corresponds to the claimed method where the texture addressing extent is equal to a texture addressing range divided by the zoom factor. The "translating (of) the graphic element" is a way to adjust the offsets of the original image, and "scaling the graphic element relative to a texture map" could only be done using a zoom factor.

In regards to claims 9 and 10, Falk teaches the limitations of offsets as stated above. It is inherent that the offsets would be used in the x and y directions. The method of calculating offsets to determine the amount of a display surface to be mapped has already been explained above by Falk (see Falk, Col. 10 Lines 21-29). In order to determine how much of the desktop to map, one would have to choose these offsets in standard x and y directions and divide them by the desktop's dimensions (the desktop size relative to the object size will always have a zoom or scaling factor).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize Falk and Dumesny's method texture mapping by use of offsets, scaling factors, and addressing coordinates in the Goh's user interface because the use of texture addressing coordinates, offsets, and zoom factors would create a more accurately texture mapped target model.

In regards to claims 11,12,13, and 14, Goh teaches all of the claimed limitations except:

Falk teaches: "The initial computation of these (U,V) coordinates at the **polygon vertices** is the critical technique employed in the current invention. This computation involves the mapping from the pixels in the texture to the dimensions of the represented texture swatch in the unit of measurement supplied by the user, then to the 2-D (X,Y) mesh vertex coordinates of the flattened pattern piece that has been positioned on the texture `marker` by the user" (See Falk. Col 13, Lines 21-30)

These polygon vertices correspond to the claimed texture addressing coordinates used at each corner of the rectangular object. The vertices are used to map the texture to the 2d mesh surface proportionately. This corresponds to choosing the corners of a rectangular object equal to the texture addressing offset in both the x and y direction.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize Falk's method for mapping two dimensional surface detail on three dimensional objects in the Goh's user interface because the use of corner texture addressing coordinates would simplify the texture mapping to a rectangular render target.

In regards to claims 19-20 and 21-22, Goh teaches all of the claimed limitations except:

In regards to claims 19, Falk teaches: "The initial computation of these (U,V) coordinates at the polygon vertices is the critical technique employed in the current invention. This computation involves the mapping from the pixels in the texture to the

dimensions of the represented texture swatch in the unit of measurement supplied by the user, then to the 2-D (X,Y) mesh vertex coordinates of the flattened pattern piece that has been positioned on the texture `marker` by the user." (See Falk. Col 13, Lines 21-30)

In regard to claim 20-22, Dumesny, et al. teach that "the Texture Applicator utility also provides a full range of viewing capabilities which allow users to manually **zoom in/out**, dolly, rotate, etc. as desired." (see Dumesny, et al. Paragraph 0072). The ability to zoom out corresponds to the use of an inverse zoom factor applied to the use of texture addressing coordinates in order to apply the texture to the rectangular object.

These polygon vertices and inverse zoom factors correspond to the claimed texture addressing coordinates at each of the corners of the two dimensional rectangular object. The computation of the U,V coordinates at the vertices in relation to the 2D X,Y coordinates helps properly map the texture to the render surface. This corresponds to choosing the corners of a rectangular object equal to the texture addressing offset in both the x and y direction.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize Falk and Dumesny et al.'s use of texture addressing coordinates and zoom along with inverse zoom factors in Goh's user interface because the use of corner texture addressing coordinates and zoom factors would simplify the texture mapping to a rectangular render target and allow for easy scaling of the image.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Patents #6229542 and #6597358 teach about applying textures, in particular desktops and applications, to 3d render targets

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil P. Quinn whose telephone number is 571-272-7745. The examiner can normally be reached on Monday through Friday from 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Bella, can be reached at 571-272-7778

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Neil Quinn 7/15/2005

10/5/05

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